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Subject: Horn Throat Constriction

Posted by [PointSource](#) on Thu, 04 Jun 2015 23:59:40 GMT

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I wasn't sure whether to post in Speaker, or in Pro Audio, because the loudspeaker in question was intended for a live-sound pro audio application. Please move if required.

Anyway, I'm hoping to get some Horn Guru input about a project prior to any expenses.

I'm attempting to load a pair of cone drivers into the same midrange horn with predetermined dimensions. For both speakers to fit, the passages leading from each square throat to where they meet will gradually collapse to almost half the throat area in (only) one dimension. At the narrowest point, the passage width is about 1/4 WL of 1500Hz. Both passages will feed a common horn flare & mouth. I'm aiming for an upper Xover of 1.6kHz. What kind of harmonic distortion & cancellation might I expect from this arrangement?

Any input appreciated....

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